

Bordeaux Mixture

Bordeaux mixture is the best fungicide to use for protection against early and late blight of potatoes, leaf spot of tomatoes, apple blotch and many other diseases.

How to Make Bordeaux Mixture

The standard formula, 4-4-50, calls for:

Bluestone (copper sulfate)	4 lbs.
Lime (fresh stone lime, not air-slacked)	4 lbs.
Water	50 gals.

For modifications of this, as 3-3-50, take the smaller amounts of bluestone and lime indicated.

Hydrated lime can be used in place of lump lime, but 50 per cent more should be used; that is, use 6 pounds of this form of lime in place of 4 of the lump lime.

How to Prepare Stock Solutions

Whether much or little spraying is to be done, the keeping of stock solutions on hand ready for use will be of great assistance to the grower.

(1) In a glass, earthenware, or wooden vessel (metal vessels will be corroded) dissolve bluestone at the rate of one pound for each gallon of water. To get the bluestone into solution either dissolve in hot water, or suspend it in a sack over night at the top of the water in the barrel. If the bluestone is dumped in the water, it will take days to dissolve.

(2) Prepare an equal amount of lime stock in another barrel, by using one pound of fresh stone lime (or one and one-half pounds of hydrated lime) for each gallon of water. Put the lime in the barrel or other vessel and add only enough water to slake it thoroughly. Then add the required amount of water. Always stir well before using.

To prepare 150 gallons of Bordeaux from these stocks put 120 gallons of water in the tank. Then add twelve gallons of bluestone stock, containing twelve pounds of bluestone in solution. Next, start the agitator and slowly add twelve gallons of the lime stock, containing twelve pounds of stone lime, or eighteen pounds of hydrated lime. Fill the tank with water until it contains 150 gallons. Arsenate of lead, if to be used, should be added after the lime.

To prepare 12 gallons of spray use ten gallons of water, and one gallon each of the bluestone and lime. First add the bluestone solution to the ten gallons of water and then add the lime. Stir the mixture well while adding the lime. One can prepare any small amount of Bordeaux from these stocks by taking 10 parts of water and 1 part of each stock.

When Mixed, Bordeaux Must be Used at Once. If it stands even two or three hours it deteriorates. Mixed Bordeaux can be kept for a day or so by adding one-half pound of sugar to each 50 gallons.

Each new lot of Bordeaux mixture should be tested for the presence of uncombined copper sulfate. A bright knife blade when thrust into the finished mixture for a count of twenty should come out without copper tarnish. If copper appears on the blade, add lime until further tests show no deposits. A drop of a solution of potassium ferrocyanide (made by dissolving one ounce in one pint of water) when added to a spoonful of the complete mixture should remain yellow. If a brown color appears, more lime should be added.